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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------|------------------|
| 10/608,976   | 06/27/2003  | David E. Rodrigues   | RD28584-1                  | 6404             |
| 23413  | 7590        | 01/12/2006           | EXAMINER                   |                  |
| CANTOR COLBURN, LLP<br>55 GRIFFIN ROAD SOUTH<br>BLOOMFIELD, CT 06002 |             |                      | VIJAYAKUMAR, KALLAMBELLA M |                  |
|  |             |                      | ART UNIT                   | PAPER NUMBER     |

1751

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/608,976

Applicant(s)

RODRIGUES, DAVID E.

Examiner

Kallambella Vijayakumar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

Applicant's election with traverse of Gp-1, Claims 1-13 in the reply filed on 10/24/2005 is acknowledged. Claims 14-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. This action is deemed to be proper for the reasons set forth in last office action and hence made FINAL.

The IDS filed 08/04/2005, 05/27/2005, 12/30/2004 and 10/10/2003 have been considered by the examiner.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1-3, 5-8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creehan (US 5,445,327).

Creehan teaches a process for preparing a composite by blending a matrix material such as polyester, polyamide or polyurethane; a filler comprising carbon fibrils and carbon black; and a viscosity modifier such as a solvent (MEK, water mineral oil) or a reactive diluent (styrene, acrylates) in a stirred ball mill with shear and impact forces and uniformly dispersing the filler in the matrix material (Abstract, Col-1, ln 36-Col-2, ln 48; Col-3, Ln 2-59).

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The prior art is silent about the variation in the ratio of resistivities and the variation in viscosities per the claims 1 and 11-12.

However the prior art teaches uniform distribution of filler in the matrix and its control by varying the milling time, whereby the claimed variation in the resistivities due to the variation in filler distribution and the claimed variation in viscosities will be obvious in the prior art process (Col 2, Ln 51-59; Col-4, Ln 12-18; Table-1).

With regard to Claim-13, the prior art teaches a composite, and when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is not patentable. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) And *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113.

2. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creehan (US 5,445,327) in view of Nahass et al (US 5,591,382).

The method of making the polymer composite and dispersion of fillers in polymer the matrix taught by Creehan as set forth in rejection-1 is herein incorporated.

The prior art fails to teach the specific polymer per claim-4 and injection molding of the composition per claim-9.

In the analogous art, Nahass et al teach dispersion of carbon fibrils in a polymer matrix such as polyester, polyamide, polycarbonate/ABS, polyphenylene ether/Nylon with high shear and forming the composite by injection molding (Abstract, Col-5, Ln 40 to Col-6, Ln 11; Col-6, Ln 31 to Col-7, Ln 52).

It would be obvious to a person of ordinary skill in the art to combine the prior art teachings to substitute the polymer of Creehan with blends of Nahass as functional equivalents, or include the blends of Nahass in the composition because Creehan teaches the use of thermoplastic polymers such as SBR in the composition (Col-3, Ln 34-39), and further form the product by the injection molding with reasonable expectation of success because the prior art teachings are in analogous art.

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***Allowable Subject Matter***

Claim 9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The closest prior art by Silvi et al (US 6,107,415) teaches the melt blending of carbon black and carbon fibrils with PPE, but does not teach or suggestive of using a plasticizer in the composition (Abstract; Col-2, Ln 27-41; Col-7, Ln 1-45).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8-5.30 Mon-Thu, 8-4.30 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMV  
January 9, 2006.

  
**Mark Kopec**  
**Primary Examiner**